Engineered Solutions

Mahr

Measuring Station for Dynamic Cam Angle Determination

Measurement Task

- Determination of the cam angle of drive and output camshaft in relation to the integrated Hall sensors
- Dynamic measurement of the cam angle in the cylinder head cover
- Evaluation of the cam angle as "best fit
- Graphic representation of the cam shape / result

The Solution

This measuring station is designed for 100% end-of-line measurement of cylinder head covers and the camshafts already mounted in them. The station is integrated into the production line. Loading and unloading is done by a robot. After loading the actual measuring cell, the measurement is carried out. Depending on the design and cycle time requirements, the station is equipped with several measuring cells that can be loaded in parallel.

The evaluation of the cam angle is carried out as a "best-fit" similar to a form tester with graphic display of the result.

Automation:	inline
Main application:	camshaft, cylinderhead
Reference No:	83
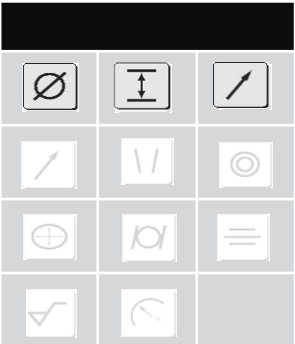
Measurement of Diameters on Gear-Shaft

Measurement Task

Measurement of different diameters on different sections staticly.

Cycle time realized is 30 sec..

The Solution

This automatic gage is for 100% measurement of diameter of gear secondary axis. The station is integrated in the production line. The procedure of measurement is:
- Auto loading
- Part type detection (data-matrix-camera)
- Removal on Vé + referencing
- Includes pneumatic measurement
- Auto unloading

The machine is design to measure different type of parts (flex plant approach). The adjustment of probes to serve the different geometries is done automatically depending on the information of data matrix information.

Automation:	inline
Main application:	shaft, gear
Reference No:	47